



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,836	12/20/2001	Jung-Gug Pae	1293.1275	1469

21171 7590 05/16/2007  
STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER
----------

ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
----------	--------------

2627

MAIL DATE	DELIVERY MODE
-----------	---------------

05/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/022,836	PAE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jorge L. Ortiz-Criado	2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) 3-8,11,12 and 15-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,9, 10, 13 and 19-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,9,10, 13 and 19-22 are rejected under 35 U.S.C. 102(a) as being anticipated by Yasuda et al. J.P. Publication No. 11-339294.

In regard to claim 1, Yasuda et al. discloses an optical pickup for use with a disc, comprising:

a blade (4) on which an objective lens (1) is mounted and which is movably supported with respect to a holder (6) by an elastic support (5); a focus coil (2) and a tracking coil (3) mounted on the blade; a magnet (8) generating an electromagnetic force driving the blade in focusing (z) and tracking (x) directions of with respect to the disc, the electromagnetic force generated by current flowing through at least one of the focus and tracking coils (see [0003]);

wherein the magnet is displaced a predetermined distance from a center line of the blade to an asymmetric position such that the electromagnetic force acts on the blade asymmetrically and in

Art Unit: 2627

a radial direction of the disc toward the outer circumference of the disc (see [0016]; Fig. 1 (b); Fig. 4),

such that when the blade moves upward, a positive direction radial rolling occurs (positive radial tilt) in a direction of an optical axis of the objective lens that is tilted toward an inner circumference of the disc, and when the blade moves downward, a negative direction radial rolling (negative radial tilt) occurs in a direction of the optical axis of the objective lens that is tilted toward the outer circumference of the disc (See Fig. 4, Yasuda et al. explains that the electromagnetic force acts on the blade depending on the position of the magnet causing, as shown, the change in radial rolling/tilt).

In regard to claim 9, Yasuda et al. discloses an optical pickup for use with a disc, comprising:

a blade (4) on which an objective lens (1) is mounted and which is movably supported with respect to a holder (6); a focus coil (2) and a tracking coil (3) mounted on the blade; a magnet (8) generating an electromagnetic force driving the blade in focusing (z) and tracking (x) directions of with respect to the disc, the electromagnetic force generated by current flowing through at least one of the focus and tracking coils (see [0003]); and a supporting unit (5) supporting the blade to tilt around an axis of the blade as the blade moves in the focusing direction (see [0016]; Fig. 4),

wherein the magnet is displaced a predetermined distance from a center line of the blade to an asymmetric position such that the electromagnetic force acts on the blade asymmetrically and in

Art Unit: 2627

a radial direction of the disc toward the outer circumference of the disc (see [0016]; Fig. 1 (b); Figs. 3-4),

such that when the blade moves upward, a positive direction radial rolling occurs (positive radial tilt) in a direction of an optical axis of the objective lens that is tilted toward an inner circumference of the disc, and when the blade moves downward, a negative direction radial rolling (negative radial tilt) occurs in a direction of the optical axis of the objective lens that is tilted toward the outer circumference of the disc (See Fig. 4, Yasuda et al. explains that the electromagnetic force acts on the blade depending on the position of the magnet causing, as shown, the change in radial rolling/tilt).

In regard to claim 10, Yasuda et al. discloses an optical pickup for use with a disc, comprising:

a blade (4) on which an objective lens (1) is mounted and which is movably supported with respect to a holder (6); a focus coil (2) and a tracking coil (3) mounted on the blade; a magnet (8) generating an electromagnetic force driving the blade in focusing (z) and tracking (x) directions of with respect to the disc, the electromagnetic force generated by current flowing through at least one of the focus and tracking coils (see [0003]); a unit (5) moving the blade to tilt around an axis of the blade as the blade moves in the focusing direction (see [0016]; Fig. 4), wherein the magnet is displaced a predetermined distance from a center line of the blade to an asymmetric position such that the electromagnetic force acts on the blade asymmetrically and in a radial direction of the disc toward the outer circumference of the disc (see [0016]; Fig. 1 (b); Fig. 4),

such that when the blade moves upward, a positive direction radial rolling occurs (positive radial tilt) in a direction of an optical axis of the objective lens that is tilted toward an inner circumference of the disc, and when the blade moves downward, a negative direction radial rolling (negative radial tilt) occurs in a direction of the optical axis of the objective lens that is tilted toward the outer circumference of the disc (See Fig. 4, Yasuda et al. explains that the electromagnetic force acts on the blade depending on the position of the magnet causing, as shown, the change in radial rolling/tilt).

Regarding claims 19-22, Yasuda et al. discloses wherein the magnet includes a first magnet and a second magnet that are positioned opposite to each other with the blade placed therebetween (See [0021], two magnets about the magnetic circuit opposite to each other).

In regard to claim 13, Claim 13 has limitations similar to those treated in the above rejection(s), and are met by the references as discussed above. Claim 13 however also recite the limitations of a turntable and a motor, which are inherently for Yasuda et al's optical disk CD or DVD player ([0002]).

### ***Response to Arguments***

Applicant arguments with respect to the newly added limitations regarding the radial rolling in that patentably distinguishes over Yasuda.

Art Unit: 2627

The examiner cannot concur because Yasuda clearly discloses that the magnet is displaced in the direction of "tracking" "X", as shown arrow in Fig. 1(b), which is in a radial direction of the disc toward the outer circumference of the disc such that the electromagnetic force acts on the blade depending on the position of the magnet, as explained in paragraph [0016], and as shown in Figures 4 (dotted and solid lines shown positions) the electromagnetic force acts on the blade asymmetrically and as clearly explained in paragraph [0016], showing such change in radial rolling/tilt, Yasuda clearly and expressly explain this feature where indicates how the electromagnetic force acts on the blade depending on the position of the magnet.

Applicant also acknowledge this feature in the remarks filed 03/22/2007, by saying "on the discussion in paragraph [0016] of Yasuda that "when a magnet 8 is moved in the direction of tracking, the point of application of electromagnetic force 13 will also be moved in the direction of tracking (refer to drawing 3), and the amount of radial tilts of an objective lens 1 will also change. In the adjustment of Yasuda, the position of the yoke 9 in a tracking direction is adjusted; the yoke is adhered and fixed.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Fri 10:00 am- 6:30 pm).

Art Unit: 2627

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jorge L. Ortiz-Criado  
Patent Examiner